

AMENDMENTS TO THE CLAIMS

Listing of Claims

The following listing of Claims replaces all previous listings or versions thereof:

1-21. (canceled).

22. (currently amended) A method of screening a compound or its salt that regulates the glucose uptake activity of a Na⁺/glucose transporter (SGLT) homolog in the small intestine, which comprises:

determining (i) the glucose uptake activity of a cell ~~capable of producing~~ expressing the homolog in the absence of a test compound and (ii) the glucose uptake activity of ~~a mixture of a~~ a cell capable of producing expressing the homolog and in the presence of a test compound, wherein the cell is present in a jejunal slice in an intestinal organ culture system, and

comparing the glucose uptake activities between the cases of (i) and (ii), and
selecting a test compound that promotes or inhibits the glucose uptake activity,

wherein the homolog is a protein which comprises the amino acid sequence represented by of SEQ ID NO: 1, SEQ ID NO: 3, SEQ ID NO: 5 or SEQ ID NO: 50, or an amino acid sequence having at least about 90% homology to the amino acid sequence represented by SEQ ID NO: 1, SEQ ID NO: 3, SEQ ID NO: 5 or SEQ ID NO: 50, and has an active glucose transport activity, its partial peptide, or a salt thereof.

23. (canceled)

24-48. (canceled)

49. (currently amended) The method according to claim 22, wherein the glucose uptake activities for the cases of (i) and (ii) is are determined through by measuring the amount of accumulated glucose analogs including glucose or 2-deoxy-glucose, which are labeled with ³H radioactivity, accumulated into the cells, with by counting the radioactivity, and comparing them as an indicator of the active transport activity of glucose.